

[0135] If the computer wants the blades to catch more wind, it powers the lock release solenoid while simultaneously powering the motor causing the blades to start pitching flatter to the wind. Once the desired blade pitch is reached, the computer cuts power to the motor and simultaneously cuts power to the motor lock.

[0136] Under normal conditions, the computer would keep control of the blades. But if that fails, there is also a back up system to feather the blades. When an over-speed condition occurs, the centrifugal weight 1510, held by an adjustable strength catch 1404, breaks free. This causes the trip wire 1508 to release the motor lock 1518 which allows the blades to pitch into a fully feathered position 1414 as shown in FIG. 15C.

1: A tensioned support ring in the shape of a regular polygon, comprising:

- five or more ridged tube segments of equal length;
- elbow fittings joined with the rigid tube segments to form a regular polygon shaped ring structure;
- spokes connected between the elbow fittings and an axle with means of expansion;
- wherein the axle is positioned inside the ring structure in a central location and wherein the axle is positioned perpendicular to a plane of the ring structure; and
- a means of securing at least two spokes to each elbow fitting, wherein one of the at least two spokes is connected to a first end of the axle and another of the at least two spokes is connected to a second end of the axle, wherein as the axle is expanded, it creates increasing tension in each spoke, whereby compressing the elbow fittings against the tube segments thereby creating a strong, stable light weight structure.

2: The tensioned support ring of claim 1, wherein one side of each spoke is extending out of the elbow and is bent towards the first end of the axle where it is connected, and another other side of each spoke is extending from another side of the elbow is bent towards the second end of the axle where it is connected.

3: A tensioned support ring in the shape of a regular polygon comprising:

- five or more ridged tube segments of equal length;
- elbow fittings joined with the rigid tube segments to form a regular polygon shaped ring structure;
- spokes connected between the elbow fittings and an axle with means of expansion
- wherein the axle is positioned inside the ring structure in a central location and the axle is positioned perpendicular to a plane of the ring structure;
- wherein the spokes are positioned outside of the ring structure such that one end of each spoke is connected to a first end of the axle while another end of each spoke is connected to a second end of the axle;

- wherein a center portion of each spoke is positioned at a center portion of a corner edge of each elbow, wherein while the axle is expanded, the spokes begin to tighten against the elbows, wherein the elbows have a groove therein so that each spoke, under tension, cannot slip to one side or another, and therefore all spokes remain at outermost corners of the ring structure; and

- as the axle is further expanded, it creates increasing tension in each spoke which compresses the elbows against the tube segments, thereby creating a strong stable light weight structure.

4. (canceled)

5: The tensioned support ring of claim 9, wherein the plurality of drive hooks attach to the ring structure so that the plurality of drive hooks lie on a plane and, in combination, serve the function of a large pulley that is capable of driving the belt for powering the generator.

6: The tensioned support ring of claim 1, further comprising a plurality of blades connected to the axle and extending outwards therefrom.

7: The tensioned support ring of claim 6, wherein the plurality of blades are positioned at least partially interior of the ring structure and at least partially exterior of the ring structure.

8: The tensioned support ring of claim 1, further comprising:

- a belt connected to the ring structure;
- at least one pulley connected to the belt; and
- at least one generator connected to the belt, wherein rotational movement of the ring structure is transferred to die at least one generator through the at least one belt.

9: The tensioned support ring of claim 8, further comprising a plurality of drive hooks connected to the ring structure, wherein the drive hooks interface between the ring structure and the at least one pulley.

10: The tensioned support ring of claim 3, further comprising a plurality of blades connected to the axle and extending outwards therefrom.

11: The tensioned support ring of claim 10, wherein the plurality of blades are positioned at least partially interior of the ring structure and at least partially exterior of the ring structure.

12: The tensioned support ring of claim 3, further comprising:

- a belt connected to the ring structure;
- at least one pulley connected to the belt; and
- at least one generator connected to the belt, wherein rotational movement of the ring structure is transferred to the at least one generator through the at least one belt.

13: The tensioned support ring of claim 12, further comprising a plurality of drive hooks connected to the ring structure, wherein the drive hooks interface between the ring structure and the at least one pulley.

14: A system of getting power from a wind ring, the system comprising:

- a wind ring formed from:
 - a plurality of ridged tube segments of equal length;
 - elbow fittings joined with the rigid tube segments; and
 - spokes connected between the elbow fittings and an axle with means of expansion, wherein the axle is positioned inside the wind ring in a central location and wherein the axle is positioned perpendicular to a plane of the wind ring;
- a plurality of blades connected to the axle and extending outwards therefrom;
- a belt connected to the wind ring;
- at least one pulley connected to the belt; and
- at least one generator connected to the belt, wherein rotational movement of the wind ring is transferred to the at least one generator through the at least one belt.